

SEQUENCE LISTING

<110> KIKKOMAN CORPORATION

<120> MODIFIED SARCOSINE OXIDASES, GENES AND RECOMBINANT DNAs
THEREOF, AND METHODS FOR PREPARING THE SAME

<130> PH-2077

<150> JP 2003-121533

<151> 2003-04-25

<150> JP 2003-396807

<151> 2003-11-27

<150> JP 2004-116345

<151> 2004-04-12

<160> 4

<170> PatentIn Ver. 2.1

<210> 1

<211> 387

<212> PRT

<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence: modified sarcosine oxidase

<400> 1

Met Ser Thr His Phe Asp Val Ile Val Val Gly Ala Gly Ser Met Gly

1

5

10

15

Met Ala Ala Gly Tyr Tyr Leu Ala Lys Gln Gly Val Lys Thr Leu Leu

20

25

30

Val Asp Ala Phe Asp Pro Pro His Thr Glu Gly Ser His His Gly Asp

35

40

45

Thr Arg Ile Ile Arg His Ala Tyr Gly Glu Gly Arg Lys Tyr Val Pro

50

55

60

Phe Ala Leu Arg Ala Gln Glu Leu Trp Tyr Glu Leu Glu Asn Glu Thr

65

70

75

80

His Asn Lys Ile Phe Thr Lys Thr Gly Val Leu Val Phe Gly Pro Lys

85

90

95

Gly Glu Ser Asp Phe Val Ala Glu Thr Met Glu Ala Ala Ala Glu His

100

105

110

Ser Leu Thr Val Asp Leu Leu Glu Gly Asp Glu Ile Asn Thr Arg Trp

115

120

125

Pro Gly Ile Thr Val Pro Glu Asn Tyr Asn Ala Ile Phe Glu Pro Asn

130

135

140

Ser Gly Val Leu Phe Ser Glu Asn Cys Ile Arg Ser Tyr Arg Glu Leu
145 150 155 160

Ala Val Ala Lys Gly Ala Lys Ile Leu Thr Tyr Thr Arg Val Glu Asp
165 170 175

Phe Glu Val Ser Gln Asp Gln Val Lys Ile Gln Thr Ala Asn Gly Ser
180 185 190

Tyr Thr Ala Asp Lys Leu Ile Val Ser Met Gly Ala Trp Asn Ser Lys
195 200 205

Leu Leu Ser Lys Leu Asn Leu Asp Ile Pro Leu Gln Pro Tyr Arg Gln
210 215 220

Val Val Gly Phe Phe Asp Ser Asn Glu Ala Lys Tyr Ser Asn Asp Val
225 230 235 240

Gly Tyr Pro Ala Phe Met Val Glu Val Pro Lys Gly Ile Tyr Tyr Gly
245 250 255

Phe Pro Ser Phe Gly Gly Cys Gly Leu Lys Ile Gly Tyr His Thr Tyr
260 265 270

Gly Gln Gln Ile Asp Pro Asp Thr Ile Asn Arg Glu Phe Gly Ala Tyr
275 280 285

Gln Glu Asp Glu Ser Asn Leu Arg Asp Phe Leu Glu Lys Tyr Met Pro
290 295 300

Glu Ala Asn Gly Glu Leu Lys Arg Gly Ala Val Cys Met Tyr Thr Lys
305 310 315 320

Thr Pro Asp His His Phe Val Ile Asp Thr His Pro Glu His Ser Asn
325 330 335

Val Phe Val Ala Ala Gly Phe Ser Gly His Gly Phe Lys Phe Ser Ser
340 345 350

Val Val Gly Glu Val Leu Ser Gln Leu Ala Thr Thr Gly Lys Thr Glu
355 360 365

His Asp Ile Ser Ile Phe Ser Ile Asn Arg Pro Ala Leu Lys Gln Lys
370 375 380

Thr Thr Ile
385

<210> 2
<211> 1164
<212> DNA
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence: Recombinant DNA

<400> 2

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acagaaggaa gccatcacgg tgatactcgc attatccgcc atgcttacgg tgaaggaaga 180
gaatatgttc cattgcact aagagcaca gaattatggt atgaacttga aaatgaaaca 240
cacaataaga ttttacaaa aacaggcggt ctagtttg gtccgaaagg tgaatccgat 300
ttcggtgccg aaacaatgga ggcagctgca gaacattcat tgatcgtgga tttacttgag 360
ggtgatgaaa tcaatacgcg ctggcccgcc ataacggttc ctgaaaacta taatgcaatt 420
tttgaaccaa attcaggcgat attgttcagt gagaattgta ttcgttcata ccgtgagctg 480
gctgttagcaa aaggagcaaa aattttaca tatactcgtg ttgaggattt tgaagttct 540
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gattatccag cattcatggt agaagtacca aaaggtatattt attacggattt cccaaagcttc 780
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aaataatgc cagaagcaaa tggcgagttt aaacgaggcg cagcttgtat gtacacgaaa 960
acaccagatg aacatttcgt gattgatact catccagaac attccaatgt tttcttgaa 1020
gctggttct ctggacacgg cttaattt tcaagtgttag tcggtaagt gttaagtcaa 1080
tttagcgacaa caggtaaaac agaacatgtat atttcaattt tctcaataaaa tcgtccctgct 1140
ttaaaacaga aaacaacgtat ttaa 1164

<210> 3

<211> 22

<212> DNA

<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence: Synthetic DNA

<400> 3

gtaccggatc cgctagctt ac

22

<210> 4

<211> 21

<212> DNA

<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence: Synthetic DNA

<400> 4

cgacggccag agatcta g

21